INTEGRATE-HTA

Key domains of context and implementation and their assessment in systematic reviews of complex health interventions

Preliminary Guidance

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Reach and effectiveness of complex interventions inextricably linked with implementation in given context (Waters et al. 2011, Wells et al. 2012)

Information on context and implementation often neither explicitly reported nor considered in interpretation

- Sufficient detail needs to be reported in primary studies and captured in systematic reviews/HTAs
- Assessment of generalizability and applicability
Context frameworks: none found

Implementation frameworks:

- Promoting Action on Research Implementation in Health Services (PARIHS) framework (Kitson et al. 1998)
- Reach Effectiveness Adoption Implementation Maintenance (RE-AIM) framework (Glasgow et al. 1999)
- Consolidated Framework of Implementation Research (CFIR) (Damschroder et al. 2009)
- Model of Implementation Process (Greenhalgh et al. 2004)
- Practical, Robust Implementation and Sustainability Model (PRISM) (Feldstein & Glasgow, 2008)
- Diffusion of Service Innovations Model (Rogers 1995)
Objectives

- Systematic, comprehensive documentation of context and implementation in systematic reviews of effectiveness/HTAs
- Formulation of research questions for qualitative/mixed-method systematic reviews
## Methods

- **Literature review:**
  - Snowballing searches
  - Focus on existing definitions and methodological approaches
  - Identification of individual concepts

- **Development of Context and Implementation for Complex Interventions (CICI) Framework**
  - Development of definitions of key terms
  - Assembly of individual concepts under higher-order domains
  - Multiple stages of peer review

- **Testing of the framework:**
  - Series of rapid assessments
  - Testing in approx. three systematic reviews and one HTA
Results: Overview

- Definitions of key terms
- Comprehensive framework with two dimensions
  - Eight interacting domains of context
  - Four interacting domains of implementation
- Guidance on application in systematic reviews and HTAs of complex interventions
Context is the given, broad environment within which an intervention/technology is implemented (Damschroder et al. 2009)

Setting is the immediate physical environment where an intervention/technology is delivered

Implementation is defined as the constellation of measures and processes, which are intended to ensure uptake and sustained use of an intervention in a particular setting and context (Damschroder et al. 2009, Klein&Sorra 1996, Glasgow et al. 1999)
Results: Context and Implementation for Complex Interventions (CICI) Framework
### Results: Domain Definitions and Descriptions

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| **Locational** | The locational characteristics encompass the immediate physical and organisational environment, in which an intervention is delivered. | Depending on the specific intervention/technology, describing this domain may include:  
- City, region, country (e.g. urban, rural)  
- Type of study site (e.g. primary care, hospital, home, school, occupational setting)  
- Number of study sites |

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| **Provider** | This domain focuses on the characteristics of the individuals delivering the intervention/technology, including their behaviour as well as their knowledge, skills, motivation and beliefs and related training activities. | Depending on the specific intervention/technology, describing this domain may include:  
- Competence, skills and knowledge  
- Beliefs and perceptions  
- Training Activities  
- Behaviour  
- Motivation  
- Capacity |
Application of CICI Framework

- Getting started:
  - What is the intervention?
  - What is its implementation?
  - Adapting framework to intervention and question

- Systematic reviews of effectiveness: documentation through data extraction

- Qualitative/mixed-method systematic reviews: basis for question formulation
### Context

**Setting**

**Locational** Which locational characteristics influence the intervention, its implementation, its population reach and its effectiveness? How does location exert its influence?

### Implementation

**Delivery**

**Provider** What mechanisms and processes in the providers are applied in the implementation of the intervention? How do these enable or limit implementation?
Based on existing approaches but goes beyond these:

- **Comprehensiveness**: consideration of both dimensions, their overlaps and interactions (previous approaches primarily focusing on implementation)
- **Flexibility**: Independent consideration of dimensions
- **Broad applicability** from simple to complex interventions in healthcare as well as broader health areas
- **User-friendliness in operationalization**
Discussion

- Your questions?

- Distinction between context and implementation dimensions useful?

- Graphic and tabular presentation of framework and domains helpful?

- Major barriers to applicability?

- Added value of framework?
For any comments or feedback

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